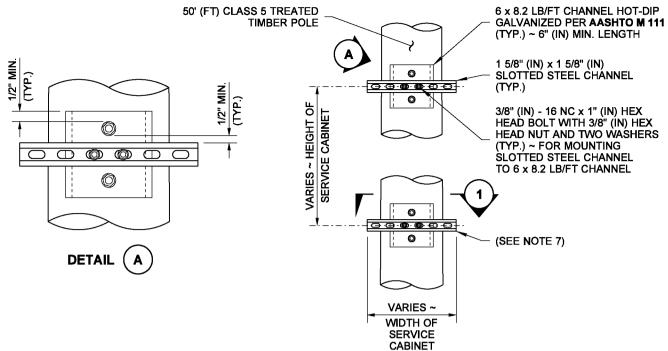
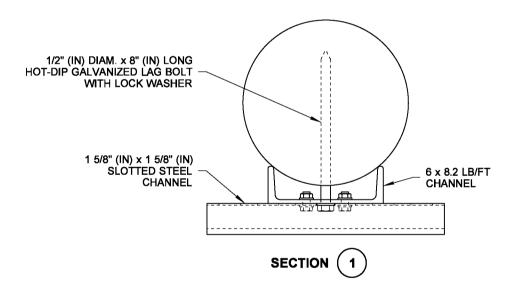
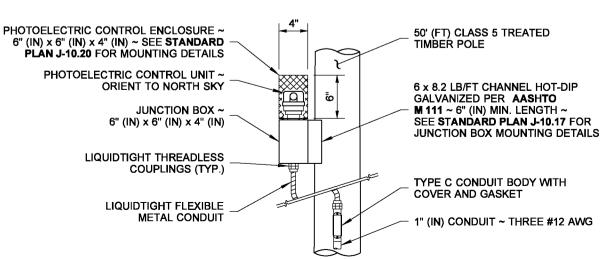


TYPE A SERVICE ~ 120 VOLT



### **SERVICE CABINET MOUNTING DETAILS**

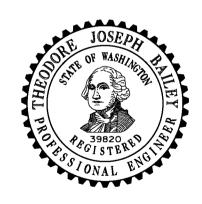




PHOTOELECTRIC CONTROL DETAILS

#### NOTES

- Metering arrangements may vary with different serving utilities. The Contractor shall verify the requirements of the utility prior to installing the service equipment.
- 2. All service pole conduits shall be secured to the pole with two-hole conduit straps spaced at 5' (ft) maximum centers. See **Standard Plans J-60.13 and J-60.14** for steel channel support and wood pole mounting details. Where required by the Utility, an alternative-use hot-dip galvanized standoff bracket may be used. For details, see ALTERNATE STANDOFF BRACKET DETAIL on Sheet 2.
- All risers and service equipment shall be installed on side of pole that is away from traffic
- Where required by the serving utility, service breakers shall be installed above meter socket in a separate rain-tight enclosure.
- See Standard Plan J-60.05 for grounding details
- See Breaker Schedule in Contract for breaker and contactor sizes.
- See Standard Plan J-60.13 for mounting details.



## SERVICE CABINET TYPE A (0 - 60 AMP TYPE 120 VOLT SINGLE PHASE) STANDARD PLAN J-10.16-00

SHEET 1 OF 2 SHEETS

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STATE DESIGN ENGINEER

Vashington State Department of Transportation

DRAWN BY: COLBY FLETCHER

#### **NOTES (CONTINUED)**

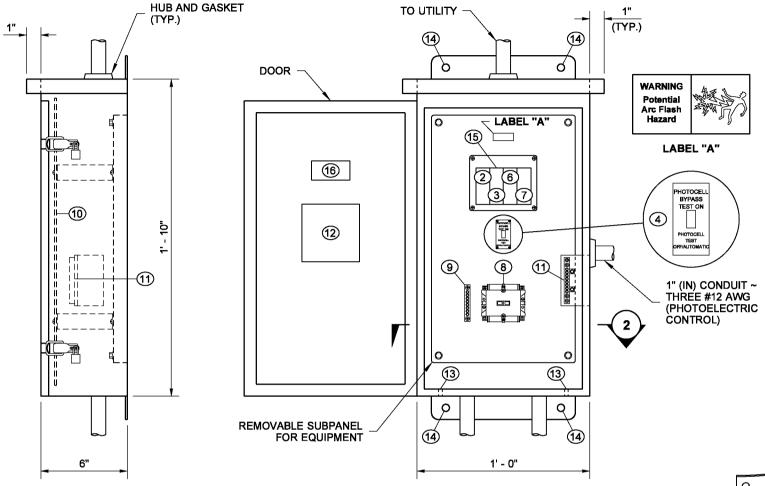
- 8. See Standard Specification 9-29.24 (Service Cabinets).
- 9. Hinges shall have stainless steel or brass pins.
- 10. Cabinet shall be rated NEMA 3R.
- 11. The metering equipment door shall be pad-lockable. Each door shall be gasketed. See **Standard Plan J-10.20** for door hinge details.
- 12. The following equipment within the service enclosure shall have an appropriately engraved phenolic name plate attached with screws or rivets:

Key Numbers 2, 3, 4, 6, 7, and 8.

Key Number 4 name plate shall read as follows: "PHOTOCELL BYPASS TEST ON" AND "PHOTOCELL TEST OFF - AUTOMATIC."

See service cabinet detail.

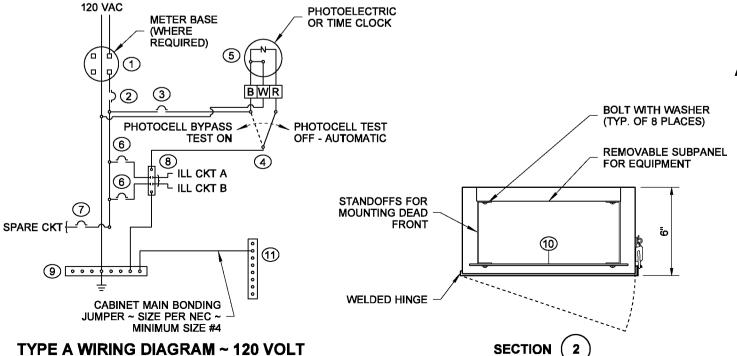
- 13. Dimensions shown are minimum and shall be adjusted to accommodate the various sizes of equipment installed.
- 14. All busswork shall be high grade copper and shall equal or exceed the main breaker rating. All breakers shall bolt on to the busswork. Jumpering of breakers shall not be allowed. Busswork shall accommodate all future equipment as shown in the Breaker Schedule.
- 15. The photoelectric control unit shall be centered in the photoelectric control enclosure to permit 360 degree rotation of the photoelectric control unit without removal of the photoelectric control unit or the photoelectric control enclosure.
- 16. All internal wire runs shall be identified with "TO FROM" coded tags labeled with the code letters and/or numbers shown on the Schedules. Approved PVC or polyolefin wire marking sleeves shall be used.
- 17. All nuts, bolts, screws, and washers used for mounting the photoelectric control enclosure, conduit body covers, and junction box cover shall be **ASTM F593** or **A193**Type 304 or Type 316 stainless steel.
- 18. A 1% tolerance is allowed for all dimensions.
- Slotted steel channel and mounting hardware components shall be stainless steel. Conduit clamps shall be hot-dip galvanized steel or stainless steel.
- 20. Install conduit couplings on all conduits.
- 21. When using alternate door hinge, remove hinge pin prior to welding the hinge to the cabinet and prior to hot-dip galvanizing. After galvanizing, replace pin with a brass pin or solder in place. See Standard Plan J-10.20 for alternate door hinge details.
- 22. The photoelectric control enclosure shall be fabricated from 5/8" (in) expanded steel mesh with welded seams and mounting flanges and shall be hot-dip galvanized after fabrication. Type 5052 H32 aluminum with 5/8" (in) x 5/8" (in) expanded steel mesh may be used as an alternative material. See **Standard Plan J-10.20** for enclosure mounting details.
- 23. See Contract for Breaker Schedule.



**ELEVATION VIEW** 

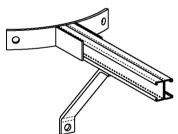
# TYPE A SERVICE CABINET (60 AMP TYPE 120 1¢ SERVICE CABINET)

**SIDE VIEW** 



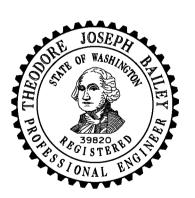
#### KEY

- METER BASE PER SERVING UTILITY REQUIREMENTS ~ AS A MINIMUM, THE METER BASE SHALL BE SAFETY SOCKET BOX WITH FACTORY INSTALLED TEST BYPASS FACILITY THAT MEETS THE REQUIREMENTS OF EUSERC DRAWING 304 ~ METER BASE ENCLOSURE SHALL BE FABRICATED FROM TYPE 304 STAINLESS STEEL
- (2) MAIN BREAKER (SPST SIZE PER BREAKER SCHEDULE)
- 3) PHOTOELECTRIC CONTROL BREAKER (SPST ~ 15 AMP ~ 120/240 VOLT)
- 4 TEST SWITCH (SPDT ~ SNAP ACTION ~ POSITIVE CLOSE ~ 15 AMP ~ 120/277 VOLT ~ "T" RATED)
- 5 PHOTOELECTRIC CONTROL UNIT ~ SEE STANDARD SPECIFICATION 9-29.11(2)
- 6) BRANCH BREAKER ~ SEE BREAKER SCHEDULE (SPST ~ 120/240 VOLT)
- (7) SPARE BRANCH BREAKER (SPST ~ 20 AMP ~ 120/240 VOLT)
- (8) CONTACTOR ~ SEE BREAKER SCHEDULE
- (9) ISOLATED NEUTRAL BUSS ~ 8 LUG COPPER
- (10) DEAD FRONT ~ INSTALL SCREWS WITH WASHERS AT EACH CORNER ~ DEAD FRONT PANEL BOLTS SHALL NOT EXTEND INTO VERTICAL LIMITS OF THE BREAKER ARRAY(S)
- 1 CABINET MAIN BONDING JUMPER ASSEMBLY ~ BUSS SHALL BE 8 LUG TINNED COPPER ~ SEE **STANDARD PLAN J-10.20** FOR CABINET MAIN BONDING JUMPER ASSEMBLY DETAILS
- (12) METAL WIRING DIAGRAM HOLDER
- (13) 1/4" (IN) DIAMETER DRAIN HOLE ~ DRILL BEFORE GALVANIZING
- MOUNTING HOLE ~ SEE STANDARD PLAN J-10.20 FOR MOUNTING DETAILS
- 5) 4-CIRCUIT PANEL BOARD ~ MINIMUM SIZE WITH BACK-FED MAIN BREAKER
- 16) LABEL CABINET WITH BUSSWORK RATING



**PERSPECTIVE VIEW** 

ALTERNATE STANDOFF BRACKET DETAIL (SEE NOTE 2)



# SERVICE CABINET TYPE A (0 - 60 AMP TYPE 120 VOLT SINGLE PHASE) STANDARD PLAN J-10.16-00

SHEET 2 OF 2 SHEETS

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